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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,614	10/17/2006	Gerald Sugerman	61038USN(50531)	5708
21874 7590 08/10/2007 EDWARDS ANGELL PALMER & DODGE LLP P.O. BOX 55874 BOSTON, MA 02205			EXAMINER REDDY, KARUNA P	
			ART UNIT 1713	PAPER NUMBER
			MAIL DATE 08/10/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,614	Applicant(s) SUGERMAN ET AL.	
	Examiner Karuna P. Reddy	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Supplemental to FAOM of August 3, 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Preliminary amendment filed on October 17, 2006 is made of record. Claims 21-30 are cancelled, claims 1-20 are currently pending in the application.
2. This is a supplemental office action, which supercedes the one mailed on August 3, 2007 and the 3 months shortened statutory period is herein reset, from the mailing date of this office action.

Claim Objections

3. Claim 9 is objected to because of the following informalities:

The term "... essentially devoid of surfactants..." is a relative term and is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of scope of the invention. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 5-8 recite the limitation "...the coalescent..." in line 1 of claims 5-8. There is insufficient antecedent basis for this limitation in the claim.

6. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims 1 and 5-8 are indefinite because they include two transitional phrases, "...comprising..." and "...consisting essentially of..." in the same claim. "... essentially consisting of..." in claim 1 is construed as "... consisting essentially of ...". In the present office action claims are interpreted as containing the term "comprising". Appropriate correction is required.

Claim 1 (line 2), claim 4 (line 5), claim 10 (line 2), claim 11 (line 1), claim 12 (line 2), claim 13 (line 2), claim 14 (line 2), claim 15 (line 2), claim 16 (line 2) and claim 17 (line 2) recitation "... unsaturated ester/ether/ether-ester...." is considered indefinite. It is not clear as to whether it is a single compound, a list of compounds or a mixture of these compounds. In the present office action claims are interpreted as containing "unsaturated esters, unsaturated ethers or unsaturated ether-esters". Appropriate correction is required.

Claims 2-3, 9 and 18-20 are dependent on claim 1.

Double Patenting

7. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..."

(Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

8. A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.
9. In light of 35 U.S.C. 112, second paragraph above, claims 1-4 and 9-20 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-4 and 9-20 of copending Application No. 10/853,516. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-12 and 14-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugerman et al (WO 99/32563) as evidenced by Brandrup et al (Polymer Handbook, 3rd Edition, page V/72).

Sugerman et al disclose that combinations of reactive amines and hydroxyl bearing unsaturated esters and/or ethers and/or ether-esters as replacements for conventionally employed volatile amines and/or ammonia as neutralizers and organic solvents as coalescents respectively, has been found to enable the production of economical, low to no VOC acrylic and vinyl copolymer latex based coatings, paints and inks. Further enhancement may be had by substitution of hypersurfactants, in place of conventional soaps and/or dispersants and/or detergents (abstract). Among the surfactants, useful for practice in the invention include certain organometallics based on tetravalent titanium or zirconium (page 6, line 26; page 7, lines 1-3). See example 6 wherein styrene-acrylic copolymer resin is used as a latex resin and is mixed with the coalescent system. See table 3 (page 14), wherein the weight percentage of neutralizer i.e. reactive amine is less than 4 parts by weight.

As to the latex resin with low T_g , polyvinyl acetate or the acrylic copolymer in claim 7 of prior art is a low T_g latex resin¹. Therefore, examiner has a reasonable basis to believe that the claimed low T_g latex resin is inherently present in the prior art of Sugerman et al.

¹ The Polymer Handbook of Brandrup et al is included as a reference to low T_g of Polyvinyl acetate when wet and also in the presence of solvents.

As to the claimed intended use "A coalescent system for" of claims 12 and 14-16, applicants must recognize that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art structure capable of performing the intended use, then it meets the claim.

As to the percentages of organometallic based surfactants, amount of surfactant used in examples 2-5 and 8-10 is less than 2.0 (see page 14, table 3). Replacing one of these surfactants with an organometallic based surfactants contemplated in the prior art is prima facie obvious and within the scope of a skilled artisan absent evidence of unexpected results.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 1713

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugerman et al (WO 99/32563) as evidenced by Brandrup et al (Polymer Handbook, 3rd Edition, page V/72).

The discussion with respect to Sugerman et al as evidenced by Brandrup et al in paragraph 11 is incorporated herein by reference.

The prior art is silent with respect to the percentage of low T_g latex resin.

However, the composition of prior art comprises essentially the same components as that of the instant invention. It is held that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. See *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977). See also *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). See also *Peterson*, 315 F. 3d at 1330, 65 USPQ 2d at 1382 ("The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation or desire to determine where in a disclosed set of percentage ranges is the optimum range of percentages).

Therefore, in the absence of criticality or unexpected results, it would have been obvious to one skilled in the art at the time invention was made to alter the proportions of various components in the coalescent composition of Sugerman et al as a matter of routine optimization and arrive at the instant invention.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karuna P. Reddy whose telephone number is (571) 272-6566.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Karuna P Reddy
Examiner
Art Unit 1713

/KR/


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